SCC-C7478

36x Smart Dome Camera

User's Guide

ENG
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POR-B
JAP

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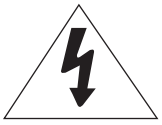
Safety information



CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.

This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.
- To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.
- If this power supply is used at 240V ac, a suitable plug adapter should be used.

WARNING

1. Be sure to use only the standard adapter that is specified in the specification sheet.
   Using any other adapter could cause fire, electrical shock, or damage to the product.
2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
3. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
4. Securely plug the power cord into the power receptacle. Insecure connection may cause fire.
5. When installing the camera, fasten it securely and firmly. The fall of camera may cause personal injury.
6. Do not place conductive objects (e.g. screwdrivers, coins, metal parts, etc.) or containers filled with water on top of the camera. Doing so may cause personal injury due to fire, electric shock, or falling objects.
7. Do not install the unit in humid, dusty, or sooty locations. Doing so may cause fire or electric shock.
8. If any unusual smells or smoke come from the unit, stop using the product. In such case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.
9. If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way. (SAMSUNG is not liable for problems caused by unauthorized modifications or attempted repair.)
10. When cleaning, do not spray water directly onto parts of the product. Doing so may cause fire or electric shock
11. If the camera is installed or rebooted after power failure when ambient temperature is below the freezing point, the dome cover is frosted. In this case, the frost will be disappeared after 3 hours after turning on the power.
    (It is noted that lowest guaranteed operating temperature is -45ºC(-49ºF) without wind.).

Safety information

CAUTION

1. Do not drop objects on the product or apply strong blows to it. Keep away from a location subject to excessive vibration or magnetic interference.
2. Do not install in a location subject to high temperature (over 140°F), low temperature (below -49°F), or high humidity. Doing so may cause fire or electric shock.
3. If you want to relocate the already installed product, be sure to turn off the power and then move or reinstall it.
4. Remove the power plug from the outlet when there is a lighting storm. Neglecting to do so may cause fire or damage to the product.
5. Keep out of direct sunlight and heat radiation sources. It may cause fire.
6. Install it in a place with good ventilation.
7. Avoid aiming the camera directly towards extremely bright objects such as sun, as this may damage the CCD image sensor.
8. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
9. The Mains plug is used as a disconnect device and shall stay readily operable at any time.

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions :

1) This device may not cause harmful interference, and

2) This device must accept any interference received including interference that may cause undesired operation.

ENG

Caution

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

IC Compliance Notice

This Class A digital apparatus meets all requirements of the Canadian Interference.-Causing Equipment Regulations of ICES-003.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
13. Unplug this apparatus when a card is used. Use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as powersupply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus

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Introduction

FEATURES

❖ Camera Specifications

- CCD Sensor : EX-view HAD™ CCD
- Zoom Magnification : × 36 Optical Zoom, × 12 Digital Zoom (Max × 432 Zoom)
- Wide Dynamic Range Function
- Day & Night Function : ICR(IR Cut filter Removal)
- Various Focus Mode : Auto Focus / Manual Focus / Semi-Auto Focus.
- Independent or Global camera settings for each Preset locations.

❖ Powerful Pan/Tilt Functions

- Max. 360°/sec high speed Pan/Tilt Motion
- Using Vector Drive Technology, Pan/Tilt motions are accomplished in the shortest path. As a result, time to target view is reduced dramatically and the video on the monitor is very natural to watch.
- Ultra low speed (0.05°/sec) enables operator to locate camera to desired target view with accuracy and ease.
- Zoom-proportional pan/tilt speed helps operator to move the camera easily.

❖ Preset, Pattern, Auto Pan, Scan, Privacy Mask, Schedule and More…

- MAX. 127 Presets are assignable. All of them have independent characteristics such as White Balance, Auto Exposure, Label, Alarm Input/ Output and so on.
- Max. 8 set of Auto Pan can be stored. This enables to move camera repetitively between two preset positions with designated speed.
- Max. 4 of Patterns can be recorded and played back. This enables to move camera to follow any trajectory operated by joystick as closely as possible.
- Max. 8 set of Scan action can be stored. This enables to move camera repetitively with combination of Preset or Pattern or Auto Pan. A Scan is composed of max. 20 entities of Preset/ Pattern/Auto Pans.
- Max 8 Privacy Masks can be set up to protect privacy of other people.
- 7 rules of Schedule can be assigned by day and time. Appropriate actions (such as Home, Preset, Scan, Pattern and Auto Pan) can be defined for each rule. Also, it is possible to use **Weekday** and **All days** to simplify the rule.

❖ PTZ(Pan/Tilt/Zoom) Control

- With RS-485 communication, max. 255 of cameras can be controlled at the same time.
- Pelco-D/ Pelco-P/ Samsung protocol can be selected as a control protocol in the current version of firmware.

❖ OSD(On Screen Display) Menu

- OSD menu is provided to display the status of camera and to configure the functions interactively.
- The information such as Camera ID, Pan/Tilt/ Zoom/Direction, Alarm Input & Output, date/time, current temperature and Preset can be displayed on screen.
- Each display item can be turned on or off independently.

❖ Alarm I/O Functions

- 8 alarm sensor Inputs and 4 relay output are available.
- To reject external electric noise and shock perfectly, alarm sensor Input is decoupled with photo coupler.
- The signal range of sensor input is from DC 5.0 to 12.0 volts to adopt various applications.
- If an external sensor is activated, camera can be set to move to the corresponding Preset position.
- Relay outputs can be assigned to work with a certain preset.

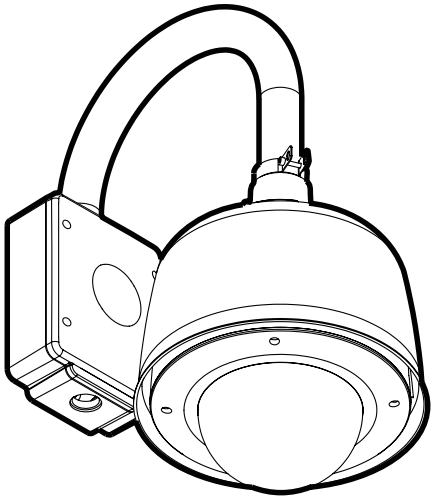
❖ Reserved Presets for Special Purpose

- Most of camera settings are directly changed by calling Reserved Presets, not entering into OSD menu. For more information,refer to “Reserved Presets”(page 15) in this manual.

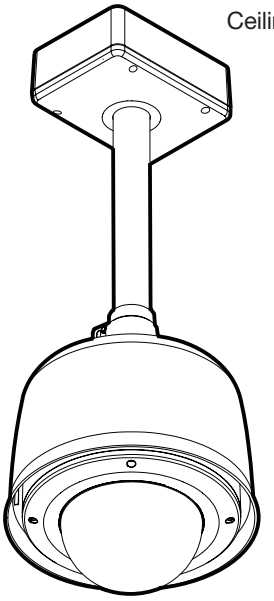
PRODUCT & ACCESSORIES

❖ Product

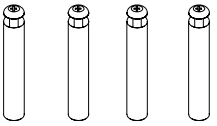
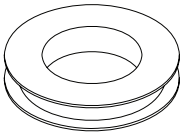
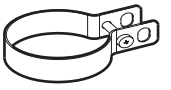
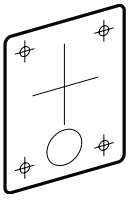
Wall Mount Type



Ceiling Mount Type



❖ Accessories

			
Hexagonal wrench	Anchor bolts (4pcs)	Water proof tape	Housing Safety Cable Hanger
			
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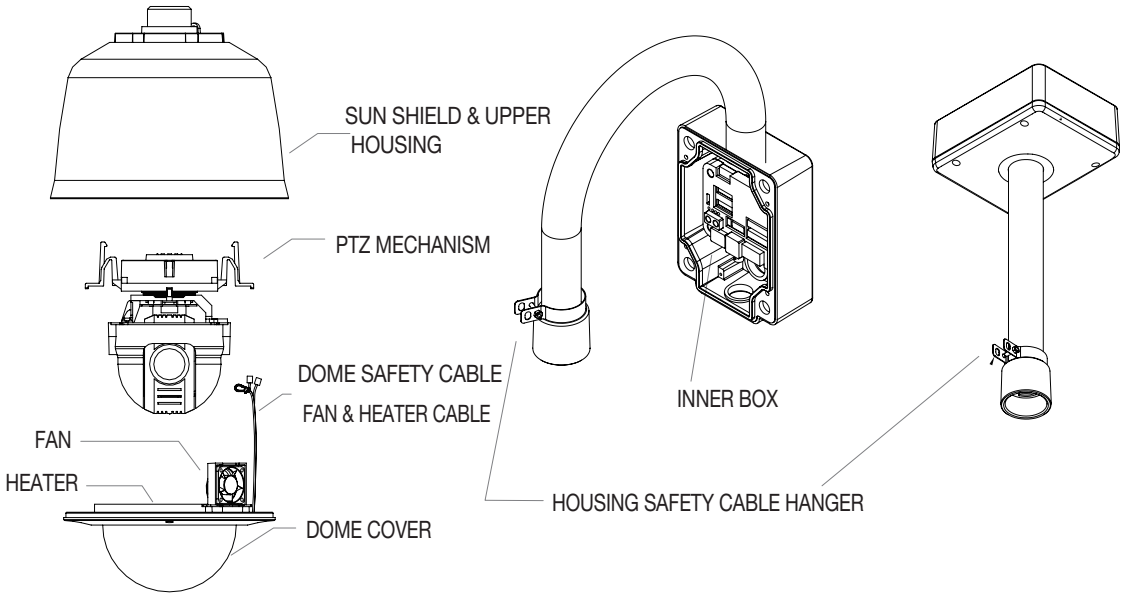
Introduction

PARTS NAME & FUNCTIONS



- Dome Cover

  Do not detach protection vinyl from dome cover before finishing all installation process to protect dome cover from scratches or dust.

  In the dome cover, there are Fan and Heater to remove moisture on the bubble dome.

- Sunshield & Upper housing

  Sunshield protect bubble dome cover from the sun rays and rain fall from. In the sunshield, there is the upper housing which will contain accommodate PTZ mechanism. Also, the upper housing will be connected to both mounting brackets and dome cover.

- Wall/Ceiling mount Bracket

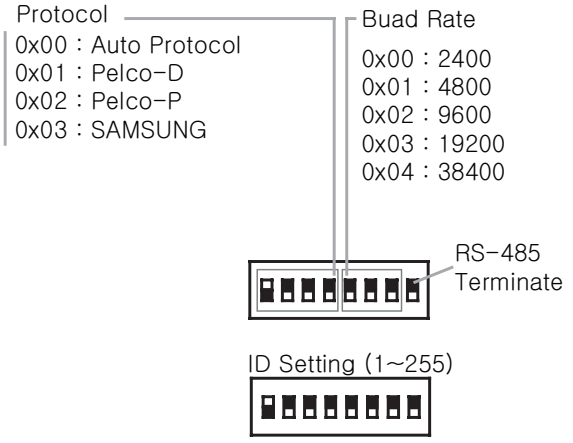
  These are used to install the camera on the wall or ceiling and have junction box. The junction box of the bracket accommodate inner box.

- Inner box

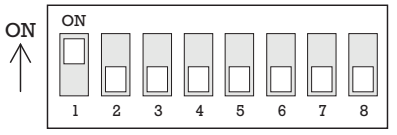
  The inner has many important roles of connection box between camera and outside. Top of the box, there are dip switches and terminal blocks for Power supply, Video, Communication, Alarm Input/output.

DIP SWITCH SETUP

Before you install the camera, you should set the DIP switches to configure the camera ID, communication protocol.



❖ Camera ID Setup

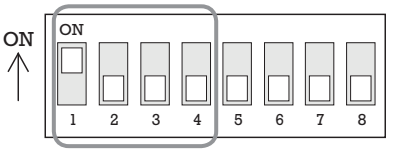


- ID number of camera is set using binary number. The example is shown bellow.

Pin	1	2	3	4	5	6	7	8
ID Value	1	2	4	8	16	32	64	128
ex) ID=5	on	off	on	off	off	off	off	off
ex) ID=10	off	on	off	on	off	off	off	off

- The range of ID is 0~255. Factory default of Camera ID is 1.
- If you want to control a certain camera, you must match the camera ID with Cam ID setting of DVR or Controller.

❖ Communication Protocol Setup

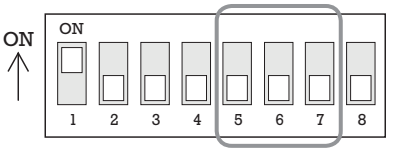


- Select the appropriate Protocol with DIP switch combination.

Switch State				Protocol
Pin1	Pin2	Pin3	Pin4	
OFF	OFF	OFF	OFF	Auto Protocol
ON	OFF	OFF	OFF	PELCO-D
OFF	ON	OFF	OFF	PELCO-P
ON	ON	OFF	OFF	SAMSUNG

- If you set the protocol as Auto Protocol, camera will automatically recognize the kind of Protocol.
- If you want to control using DVR or system keyboard, their protocol must be identical to camera. Otherwise, you can not control the camera.
- If you changed camera protocol by changing DIP S/W, the change will be effective after you reboot the camera.
- Factory default of protocol is “Auto” Protocol

❖ Communication Baud rate Setup



- Select the appropriate Baud rate with DIP switch combination.

Switch State			Protocol
Pin5	Pin6	Pin7	
OFF	OFF	OFF	2400 BPS
ON	OFF	OFF	4800 BPS
OFF	ON	OFF	9600 BPS
ON	ON	OFF	19200 BPS
OFF	OFF	ON	38400 BPS

- Factory default of Baud rate is “9600 BPS”

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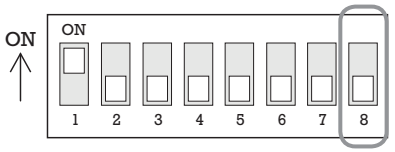
Installation

❖ RS-485 Termination Resistor

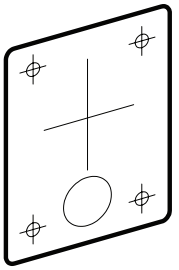


- Pin 8 is used for ON/OFF of RS-485 Termination. Normally, it must be OFF state. Especially when you have trouble with long Daisy chain style connection, turn ON this termination switch of last camera.

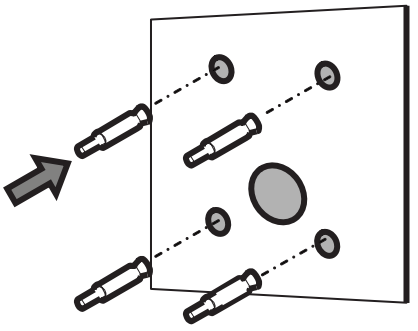
  – Pin 8 RS-485 Termination Resistor (On/Off)

INSTALLATION USING MOUNT BRACKET

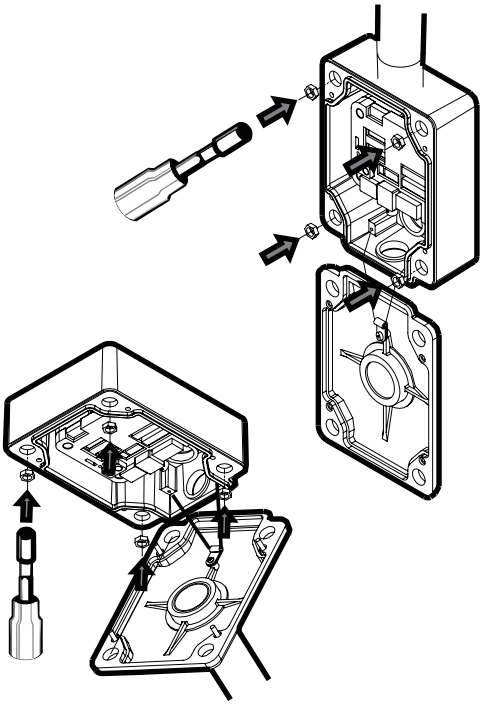
① Using the paper template, mark the holes on the wall.



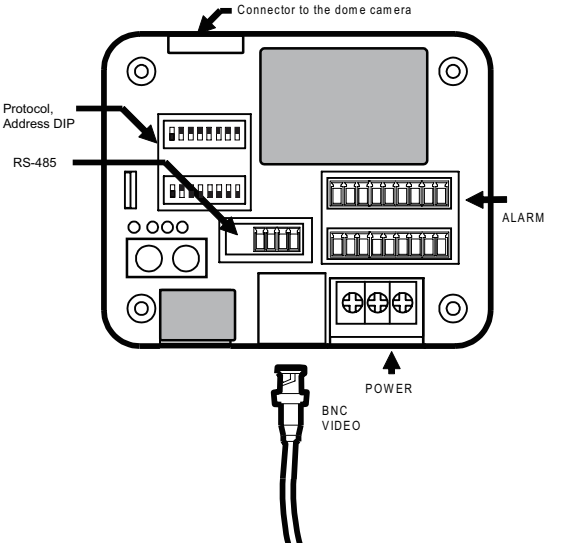
② After drilling the holes, fix the four anchor bolts into the holes.



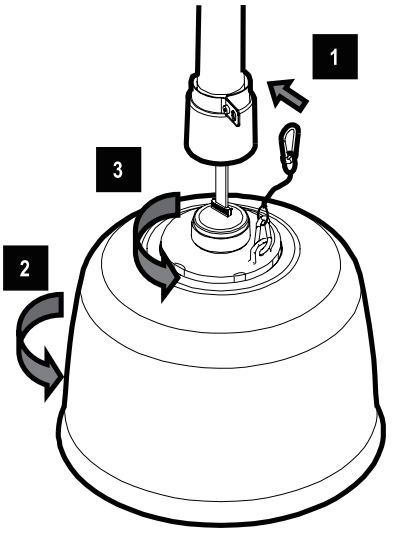
③ After locating the wall mount bracket on the anchor bolts properly. Tighten the nuts for anchor bolts



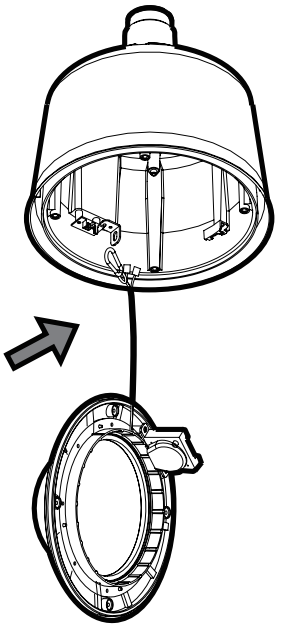
④ Connect cables to terminal blocks and BNC in the inner box of junction box. See the cabling in the next section.



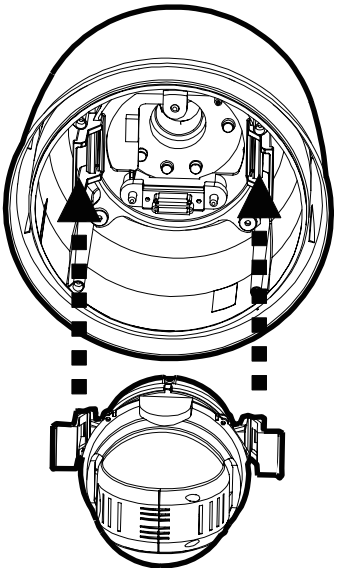
⑤ After hooking the safety cable on the hole of pipe [1], attach the upper housing to wall mount bracket by turning it at least seven turns [2]. To fix the upper body orientation, turn the handle of double nuts to clockwise tightly [3].



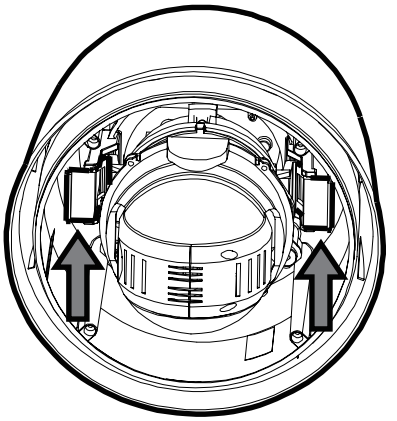
⑥ Open the dome cover to install the PTZ camera mechanism. Care must be taken dome cover is hung by internal safety cable properly. Plug fan/ heater cables into the connectors in the housing.



⑦ Plug the connector of cable from junction box into properly. After checking the orientation of one touch connector in the upper housing, press the PTZ mechanism into hook in the upper housing.



⑧ To lock the PTZ mechanism to the upper housing, press the two black handles till it sounds snap.



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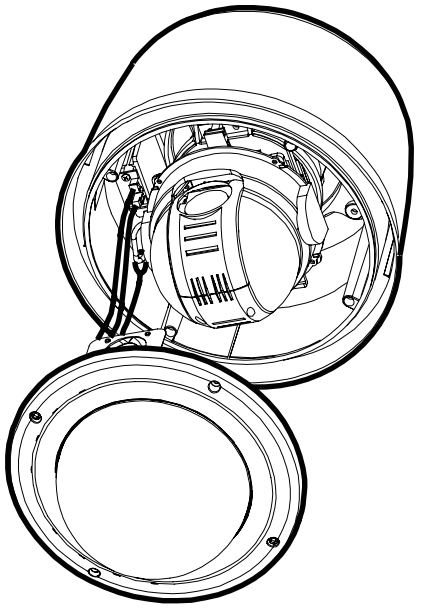
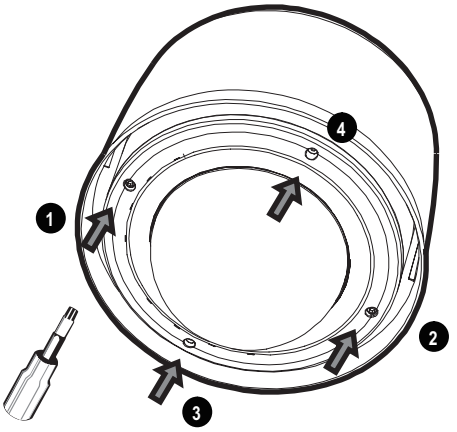
Installation

⑨ Close the dome cover. Care must be taken to locate dome cover by matching the “Arrow” mark.

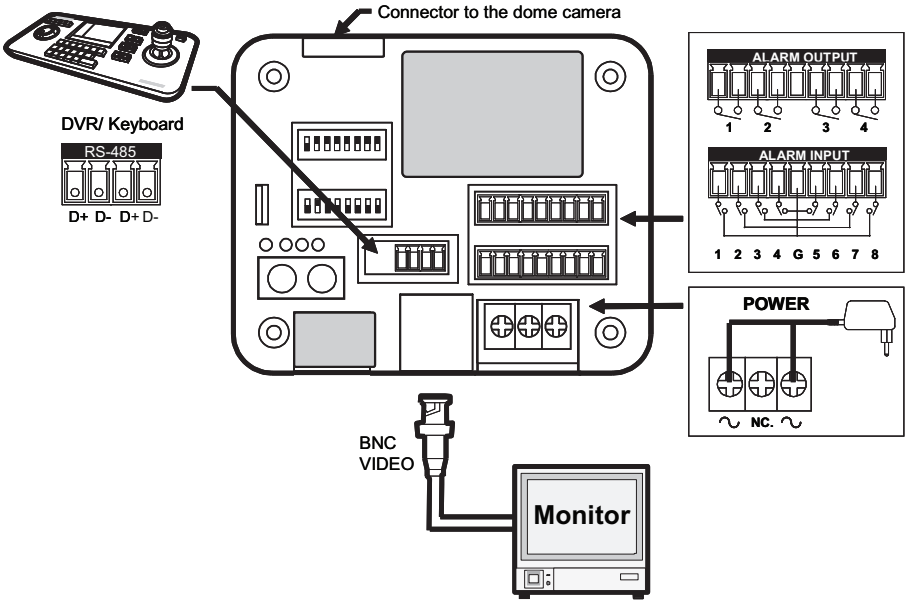


⑩ Tighten four screws on the dome cover in sequence as shown in the picture bellow.



To maintain the best sealing, the torque of each screw must be in the range between 0.5 ~ 1.0 N·m (0.37 ~ 0.73 lbf·ft).

CABLING



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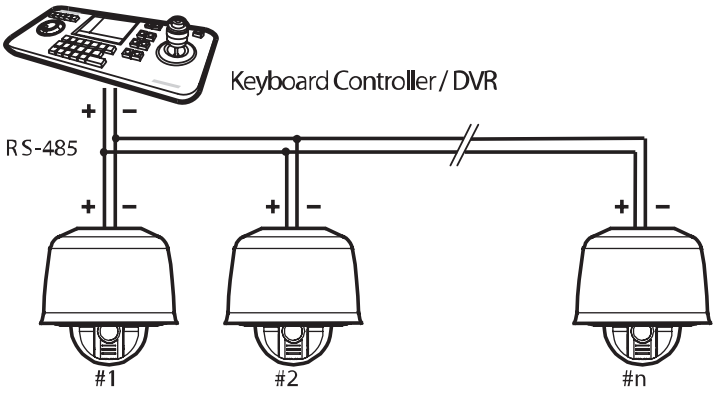
❖ Power Connection

- Please, check the voltage and current capacity of rated power carefully.

Rated Power	Input Voltage Range	Current Consumption
AC 24V	AC 19V ~29V	2.5 A

❖ RS-485 Communication

- For PTZ control, connect this line to keyboard and DVR. To control multiple cameras at the same time, RS-485 communication lines of them is connected in parallel as shown below.



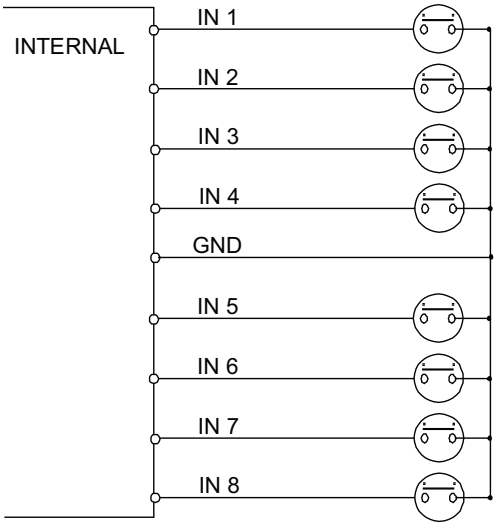
Installation

❖ Video Connection

- Connect with BNC coaxial cable.

❖ Alarm Input Connection

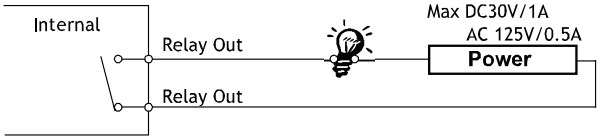
- Sensor Input



⌘ It is noted that short circuit between GND and Input pin means alarm activation.

If you want to use Alarm Input, the types of sensor must be selected in OSD menu. The sensor types are Normal Open and Normal Close If sensor type is not selected properly, the alarm can be activated reversely.

- Alarm Output



There are 4 Alarm Outputs and all of them are Relay contact type. Therefore, you do not have to care about polarity, AC/DC, and isolations between channels. Care must be taken for the power capacity of relay contact written above.

CHECK POINTS BEFORE OPERATION

- Before power is applied, please check the cables carefully.
- The camera ID of the controller must be identical to that of the camera to be controlled. The camera ID can be checked in the System Information of OSD Menu.
- If your controller supports multi-protocols, the protocol must be changed to match to that of the camera.
- If you changed camera protocol by changing DIP switch, the change will be effective after you reboot the camera.
- Since the operation method can be different for each controller available, refer to the manual for your controller if camera can not be controlled properly.

PRESET AND PATTERN FUNCTION PRE-CHECK

- Check how to operate Preset, Scan, Auto Pan and Pattern function with controller or DVR in advance to operate camera function using them. (refer to your System keyboard Manual)
- If controller or DVR has no pattern button or function, use shortcut keys with preset numbers. For more information, refer to “Reserved Preset” in this manual.

AUTO CALIBRATION

- If the camera is continuously subjected to very high temperature (over 50°C or 122°F) environment for a long time, it is possible for the camera to lose focus. As a result, you will get blurry image. In this case, it is recommended to turn on “AUTO CALIBRATION” by running Preset 165.
- If you execute AUTO CALIBRATION, camera will calibrate its focus at every 6 hours. To turn off this function, please, run Preset 166.

STARTING OSD MENU

- Function

  Using the OSD menu, Preset, Pattern, Auto Pan, Scan and Alarm Input function can be configured for each application.
- Enter Menu

  <Go Preset> [95]

RESERVED PRESET

- Description

  Some Preset numbers are reserved to special functions.
- Function

<Go Preset> [95]	: Enters into OSD menu
<Go Preset> [131~134]	: Runs Pattern Function 1~4
<Go Preset> [141~148]	: Runs Auto Pan Function 1~8
<Go Preset> [151~158]	: Runs Scan Function 1~8
<Go Preset> [161~164]	: Sets Relay 1~4 Output to OFF
<Set Preset> [161~164]	: Sets Relay 1~4 Output to ON
<Go Preset> [170]	: Sets Camera BLC Mode to OFF
<Go Preset> [171]	: Sets Camera BLC Mode to HIGH
<Go Preset> [174]	: Sets Camera Focus Mode to AUTO
<Go Preset> [175]	: Sets Camera Focus Mode to Manual
<Go Preset> [176]	: Sets Camera Focus Mode to SEMI-AUTO
<Go Preset> [177]	: Sets Day & Night Mode to AUTO1
<Go Preset> [178]	: Sets Day & Night Mode to NIGHT
<Go Preset> [179]	: Sets Day & Night Mode to DAY
<Go Preset> [190]	: Sets OSD Display Mode to AUTO (Except Privacy Mask)
<Go Preset> [191]	: Sets OSD Display Mode to OFF (Except Privacy Mask)
<Go Preset> [192]	: Setting OSD Display Mode to ON (Except Privacy Mask)
<Go Preset> [193]	: Sets all Privacy Mask Display to OFF
<Go Preset> [194]	: Sets all Privacy Mask Display to ON
<Go Preset> [167]	: Zoom Proportional Jog ON
<Set Preset>[167]	: Zoom Proportional Jog OFF
<Go Preset>[200]	: Digital Zoom ON
<Go Preset>[201]	: Digital Zoom OFF

Operation

PRESET

- Function

  Max. 127 positions can be stored as Preset position. The Preset number can be assigned from 1 to 128, but 95 is reserved for starting OSD menu.

  Camera characteristics (i.e. White Balance, Auto Exposure) can be set up independently for each preset and they are adjusted by using OSD menu. Four relay outputs can be reacted in conjunction with one Preset.

- Set Preset

  <Set Preset> [1~128]

- Run Preset

  <Go Preset> [1~128]

- Delete Preset

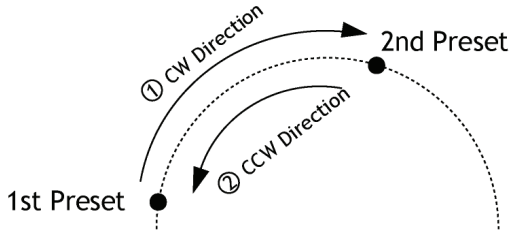
  To delete Preset, use OSD menu.

AUTO PAN

- Function

  By using Auto Pan function, you can make camera to move between 2 Preset positions repeatedly. When Auto Pan function runs, camera moves from the preset assigned as the 1st point to the preset assigned as the 2nd point in CW(Clockwise) direction. Then camera moves from the preset assigned as the 2nd point to the preset assigned as the 1st point in CCW(Counterclockwise) direction.

  In case that the preset assigned as the 1st point is same as the preset assigned as the 2nd point, camera turns on its axis by 360° in CW(Clockwise)



  direction and then it turns on its axis by 360° in CCW(Counterclockwise) direction.

  Speed can be set up from 1°/sec to 180°/sec.

- Set Auto Pan

  To set Auto Pan, use OSD menu.

- Run Auto Pan

  Method1) <Run Auto Pan> [Auto Pan NO.] [Enter]

  Method2) <Go Preset> [Auto Pan NO.+140]
  ex) Run Auto Pan 2 : <Go Preset> [142]

- Delete Auto Pan

  To delete Auto Pan, use OSD menu.

PATTERN

- Function

  Pattern Function is that a camera memorizes the path (mostly curve path) by joystick of controller for assigned time and revives the path exactly as it memorized.

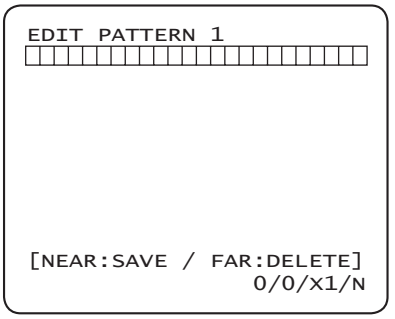
  4 Patterns are available and Maximum 1000 communication commands can be stored in a pattern.

- Set Pattern

  Pattern can be created by one of following two methods.

  Method 1) <Set Pattern> [Pattern NO.]

  – Pattern editing screen is displayed as bellow.



  – Movement by Joystick and preset movement can be memorized in a pattern.

  – The rest memory size is displayed in progress bar.

  – To save the recording, press **NEAR** key and to cancel, press **FAR** key.

  Method 2) OSD Using OSD Menu: See the section "How to use OSD Menu".

- Run Pattern

  Method 1) <Run Pattern> [Pattern NO.] [Enter]
  ex) Run Pattern 2 : <Run Pattern> [2] [Enter]

  Method 2) <Go Preset> [Pattern NO.+130]
  ex) Run Pattern 2: <Go Preset> [132]

- Delete Pattern

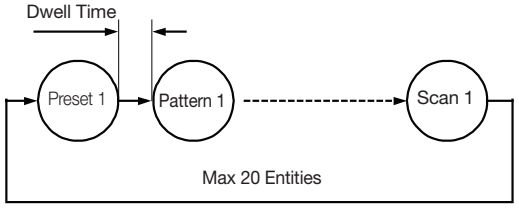
  Use OSD menu to delete a Pattern.

  ⌘ When the PATTERN is saved/executed, the PAN/TILT is operated with AUTO FLIP OFF.

SCAN

- Function

  The Scan function allows running sequence of Presets, Pattern and/or Auto Pans. Max 8 Scan can be stored. Each Scan can have max 20 action entities which can be preset, pattern or Auto Pan. Preset speed can be set up and the repeat number of Pattern & Auto Pan can be set up in Scan setup. Dwell time between actions can be set up also.



- Set Scan

  Use OSD Menu to create a Scan.

- Run Scan

  Method1) <Run Scan> [Scan NO] [Enter]

  Method2) <Go Preset> [Scan NO.+150]
  ex) Run Scan 7 : <Go Preset> [157]

- Delete Scan

  Use OSD Menu to delete.

SCHEDULE

- Function

  The Schedule function allows running an appropriate function like Preset, Auto Pan, Scan, Pattern, Home move at designated day and time. For example, if you setup a rule Tuesday at 9:00AM and Preset 1 (say Main Gate), the camera will move to main gate every Tuesday at 9:00AM. If you choose Weekday, camera will move to Main gate everyday except weekend.

  It is noted that due to the real time clock, the time data will be kept regardless of blackout. The initial time and day setup is essential to proper Schedule function.

- Set Schedule

  Use OSD Menu to create a Schedule

- Run Schedule

  Use OSD Menu of Schedule Master Enable

- Delete Schedule

  Use OSD Menu to delete.

OTHER FUNCTIONS

- Preset Lock

  This function is made to protect preset data from unauthorized overwriting. If Preset Lock is ON, Preset save command using Hot Key is disabled while Preset save using OSD Menu is acceptable.

- Power Up Action

  This function enables to resume the last action executed before power down. Most of actions such as Preset, Pattern, Auto Pan and Scan are available for this function but Jog actions are not available to resume. if there are no setup for those functions like Preset, Pattern, Auto Pan and Scan, Camera will automatically move to Home position after rebooting. If Power Up Action is set to be ON, camera will continue the function which is executed lastly after rebooting.

- Auto Flip

  In case that tilt angle arrives at the top of tilt orbit (90°), zoom module camera keep moving to opposite tilt direction (180°) to keep tracing targets. As soon as zoom module camera passes through the top of tilt direction(90°), images should be reversed automatically and F appears in screen. If this function is set to OFF, tilt movement range is 0 ~ 90°.

- Parking Action

  This function enables to locate the camera to specific position automatically if operator doesn't operate the controller for a while. The Park Time can be defined as an interval from 5 seconds to 4 hours.

- Alarm Input

  8 Alarm Inputs are used. If an external sensor is activated, camera can be set to move to corresponding preset position. It is noted that the latest alarm input is effective if multiple sensors are activated.

- Alarm Output

  There are 4 Ch. of Alarm Outputs and all of them can be assigned to a certain Preset number. For example, if you assign Preset 5 to AO2, calling Preset 5 result in turning On of AO2.

- Privacy Zone Mask

  To protect privacy, MAX. 8 Privacy Masks can be created on the arbitrary position to hide objects such as windows, shops or private house. With Spherical Coordinates system, powerful Privacy Zone Mask function is possible.

- GENERAL/SPECIAL Image Setup

  WB (White Balance) and AE (Auto Exposure) can

be set up independently for each preset. There are 2 modes, “General” mode & “Special” mode. The General mode means that WB or AE can be set up totally and simultaneously for all presets in “ZOOM CAMERA SETUP” menu. The Special mode means that WB or AE can be set up independently or separately for each preset in each preset setup menu. Each Special WB/AE value should activate correspondingly when camera arrives at each preset location.

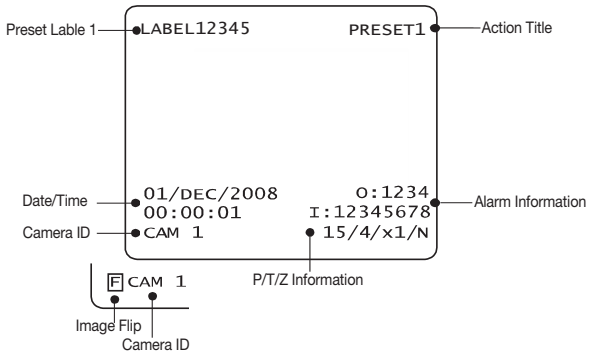
During jog operation, General WB/AE value should be applied. All Special WB/AE value will not be changed although General WB/AE value change.

- Semi Auto Focus

  This mode exchanges focus mode automatically between Manual Focus mode and Auto Focus mode by operation. Manual Focus mode activates in preset operation and Auto Focus mode activates during jog operation. With Manual mode at presets, Focus data is memorized in each preset in advance and camera calls focus data in correspondence with presets as soon as camera arrives at a preset. It should shorten time to get focuses.

  Focus mode changes to Auto Focus mode automatically when jog operation starts.

OSD DISPLAY OF MAIN SCREEN



- P/T/Z Information

  Current Pan/Tilt angle in degree, zoom magnification and a compass direction.

- Camera ID

  Current Camera ID(Address).

- Action Title

  Followings are possible Action Titles and their meaning.

  “SET PRESET ×××”

  “PRESET ×××”

  “PATTERN ×”

  “AUP×/PRESET ×××”

  “UNDEFINED”

- Preset Label

  The Label stored for specific Preset.

- Alarm Information

  This information shows current state of Alarm Input. The “I” means Input and “O” is output. If an Input is **ON** state it will show the number of input. If an Input is **OFF** state, ‘-’ will be displayed. In the same way “O :1” means output 1 is ON “O :-“ is OFF.

  Ex) When Point 2 of inputs are **ON**, and Output 1 is On, OSD will show as below

```
      O:1---
I:-2------
```

- Image Flip

  Shows that images are currently reversed by Auto Flip Function.

- Date/Time

  Displays Current Date and Time.

GENERAL RULES OF KEY OPERATION FOR MENU

- The menu items surrounded with < > always has its sub menu.
- For all menu level, to go into sub menu, press **NEAR** or **ENTER** key.
- To go to up-one-level menu, press **FAR** key.
- To move from items to item in the menu, use joystick in the **Up/Down** or **Left/Right**.
- To change a value of an item, use **Up/Down** of the joystick in the controller.
- Press **NEAR** or **ENTER** key to save values and Press **FAR** key to cancel values.

How to use OSD Menu

MAIN MENU

```
ROOT MENU
--------------------------
→<SYSTEM INFORMATION>
  <DISPLAY SETUP>
  <MOTION SETUP>
  <FUNCTION SETUP>
  <CAMERA SETUP>
  <SYSTEM SETUP>
  <SYSTEM INITIALIZE>

  EXIT
```

- System Information
  Shows info and current configuration.
- Display Setup
  Enable/Disable of OSD display on Main Screen.
- Motion Setup
  Setup for motion related settings
- Function Setup
  Setup for various functions such as Preset, Auto Pan, Pattern, Scan and Schedule.
- Camera Setup
  Configure Camera related functions and data
- System Setup
  Configure for Basic system setup.
- System Initialize
  Initializes system configuration and sets all data to factory default configuration.

SYSTEM INFORMATION

```
SYSTEM INFORMATION
--------------------------
  FIRMWARE VER      1.00S36
  COLOR SYSTEM      NTSC
  PROTOCOL          SAMSUNG
  BAUD RATE         9600
  ADDRESS           255


→BACK
  EXIT
```

- Firmware Ver.
  Shows current firmware version of camera.
- Color System
  Shows current analog video system of the camera.
- Protocol
  Shows current Protocol for PTZ control
- Baud rate — Shows current Baud rate of PTZ control.
- Address — Shows current Camera ID for PTZ control.

DISPLAY SETUP

```
DISPLAY SETUP
--------------------------
→CAMERA ID          ON
  PTZ INFORMATION   AUTO
  ACTION TITLE      AUTO
  RESET LABEL       AUTO
  ALARM I/O         AUTO
  DATE/TIME         ON
  <PRIVACY ZONE>
  BACK
  EXIT
```

This menu defines Enable/Disable of OSD display on Main Screen. If an item is set to be AUTO, the item is displayed only when the value of it is changed.

- Camera ID — [ON/OFF]
- PTZ Information — [ON/OFF/AUTO]
- Action Title — [ON/OFF/AUTO]
- Preset Label — [ON/OFF/AUTO]
- Alarm I/O — [ON/OFF/AUTO]
- Date/Time — [ON/OFF]
- <Privacy Zone> — Start Privacy Zone Mask setup Menu.

PRIVACY ZONE MASK SETUP

Select area in image to mask.

- Mask No. [1~8]

```
PRIVACY ZONE
--------------------------
→MASK NO.         1
                  UNDEFINED
  DISPLAY         OFF
  CLEAR MASK      CANCEL
  <EDIT MASK>



  BACK
  EXIT
```

Select Mask number. If the selected mask has already data, camera moves as it was set. Otherwise, “UNDEFINED” will be displayed under “Mask NO”.

- Display [ON/OFF]
  Sets if camera makes mask shows or not on images.
- Clear Mask [CANCEL/OK]
  Deletes data in the selected mask NO.

❖ Privacy Zone Area Setup

```
EDIT MASK 1
--------------------------




MOVE TO TARGET POSITION
[NEAR:SELECT/FAR:CANCEL]
                    0/0/x1/N
```

Move camera to area to mask. Then the menu to adjust mask size will be displayed.

- If the tilt angle is located in the range between 90° to 90°, you can not set up privacy zone mask.
- If tilt angle over 90° (image flipped region) is designated, camera will automatically move to identical poison by changing tilt angle less than 90° and moving pan angle 180 relatively.

❖ Privacy Zone Size Adjustment

```
EDIT MASK 1
--------------------------


[ZOOM : COLOR CHANGE]
[◄►:ADJUST MASK WIDTH]
[▲▼:ADJUST MASK HEIGHT]
[NEAR:SAVE / FAR:CANCEL]
```

Adjust mask size. Use joystick or arrow buttons to adjust mask size.

- ◄► (Left/Right) Adjusts mask width.
- ▲▼ (Up/Down) Adjusts mask height.
- Zoom In/Out Change Color of mask.

- To hide a certain zone completely regardless of high speed PT motions, it is recommended that the size of mask must be 20% bigger than original target size.
- It is noted that during PAN/TILT control like jog action, the object behind the privacy mask can be disclosed in a short period of time.

MOTION SETUP

```
MOTION SETUP
--------------------------
→PRESET LOCK      OFF
 PWR UP ACTION    ON
 AUTO FLIP        ON
 JOG MAX SPEED    140/SEC
 JOG DIRECTION    INVERSE
 FRZ IN PRESET    OFF
 <PARKING ACTION SETUP>
 <ALARM INPUT SETUP>
 BACK
 EXIT
```

Setup the general functions of Pan/Tilt motions.

- Preset Lock [ON/OFF]
  If Preset Lock is set to ON, it is impossible to set up and delete Preset, APAN, Pattern and SCAN. It is possible only to run those functions. To set up and delete those functions, enter into OSD menu.
- Power Up Action [ON/OFF]
  Refer to “Other Functions”(page 17) section.
- Auto Flip [ON/OFF]
  Refer to “Other Functions”(page 17) section.
- Jog Max Speed [2°/sec ~200°/sec]
  Sets maximum jog speed. Jog speed is inversely proportional to ratio of zoom. As zoom magnification goes up, pan/tilt speed goes down.
- Jog Direction [INVERSE/NORMAL]
  If you set this to ‘Normal’, the view in the screen is moving same direction with jog tilting. If ‘Inverse’ is selected, the view in the screen is moving reversely.
- Freeze in Preset [ON/OFF]
  At start point of preset movement, camera starts freezing the image of start point. Camera keeps displaying the image of start point during preset movement and does not display the images which camera gets during preset movement. As soon as camera stops at preset end point, camera starts displaying live images which it gets at preset end point.

❖ Parking Action Setup

```
PARKING ACTION SETUP
--------------------------
→PARK ENABLE    OFF
 WATT TIME      00:10:00
 PARK ACTION    HOME




 BACK
 EXIT
```

If Park Enable is set to ON, camera runs assigned function automatically if there is no PTZ command during assigned “Wait Time”.

- Park Enable [ON/OFF]
- Wait Time [5 sec ~ 4 hour]

  The time is displayed with “hh:mm:ss” format and you can change this by 1 sec unit.
- Park Action

  [HOME/PRESET/PATTERN/AUTOPAN/SCAN]

  Ex) If HOME is selected for Park Action, camera will move to home position when there is no PTZ command during assigned “Wait Time.”

❖ Alarm Input Setup

```
ALARM INPUT SETUP
--------------------------
→ALARM1 N.O     PRESET1
 ALARM2 N.O     NOT USED
 ALARM3 N.O     NOT USED
 ALARM4 N.O     NOT USED
 ALARM5 N.O     PRESET1
 ALARM6 N.O     NOT USED
 ALARM7 N.O     NOT USED
 ALARM8 N.O     NOT USED
 BACK
 EXIT
```

Match the Alarm sensor input to one of Preset positions. If an external sensor is activated, camera will move to corresponding preset position when this item is predefined.

- Alarm Type

  [Normal OPEN(N.O) / Normal CLOSE(N.C)]

  Sets sensor input type.
- Alarm Action

  [NOT USED/HOME/PRESET 1~128/APAN 1~8, PATTERN1~4, SCAN 1~4]

  For each Alarm input, you can assign counteraction functions (Preset, Auto Pan, Pattern, Scan).

FUNCTION SETUP

```
FUNCTION SETUP
--------------------------
→<PRESET SETUP>
 <AUTO PAN SETUP>
 <PATTERN SETUP>
 <SCAN SETUP>
 <SCHEDULE SETUP>



 BACK
 EXIT
```

Configure 5 Special Functions with this menu

- Preset Setup

  127 Presets from the number 1 to 128 can be assigned excluding preset 95 reserved for Menu.
- Auto Pan Setup

  Up to 8 Auto Pans are available, which makes camera to move slowly between two preset points.
- Pattern Setup

  Up to 4 patterns can be stored in the dome.

  In this function, path data created by manual move of Joystick are recorded and you can playback the identical path automatically whenever required.
- Scan Setup

  Up to 8 Scans can be defined.

  In a Scan, max 20 entities are assigned from any combinations of Preset/Auto Pan/Pattern. If you run a Scan, camera will execute each entry sequentially.
- Schedule Setup

  7 rules of Schedule can be assigned by day and time. Appropriate actions (such as Home, Preset, Auto Pan, Pattern and Scan) can be defined for each rule. Also, it is possible to use Weekday and Weekend in a rule to make it simple.

ENG

How to use OSD Menu

PRESET SETUP

```
PRESET SETUP
-------------------------
→PRESET NO.     1

 <EDIT SCENE>
 <LABEL>        WINDOWS
 CLR PRESET     CANCEL
 CAM ADJUST     GENERAL
 ALARM OUT      ----

 BACK
 EXIT
```

- Preset Number [1~128]

  If a selected preset is already defined, camera moves to pre-defined position and preset characteristics such as Label and Relay Outputs show on monitor. If a selected preset is not defined, “UNDEFINED” shows on monitor.

- Edit Scene

  Redefine current Preset scene position (i.e. PTZ).

- Label

  Edits Label to show on monitor when preset runs. MAX. 10 alphabets are allowed.

- CLR Preset [CANCEL/OK]

  Delete current Preset data

- CAM Adjust [GENERAL/SPECIAL]

  WB(White Balance) and AE(Auto Exposure) can be set up independently for each preset. There are 2 modes, “General” mode & “Special” mode. The General mode means that WB or AE can be set up totally and simultaneously for all presets in “CAMERA SETUP” menu.

  The Special mode means that WB or AE can be set up independently or separately for each preset in each preset setup menu. Each Special WB/AE value should activate correspondingly when camera arrives at each preset location. During jog operation, General WB/AE value should be applied.

  All Special WB/AE value should not change although General WB/AE value changes. If “Special’’ is selected, Menu to set WB/AE shows on monitor.

- Alarm out

  State of four alarm outputs can be freely controlled in conjunction with Preset run. The character “-“ means OFF state and the number representing each bit means ON.

  Ex) If it is set to be -23-, Output relay 2, 3 will be ON and 1, 4 will be OFF, when you run this Preset.

❖ Edit Preset Scene

```
EDIT SCENE - PRESET 1
-------------------------




MOVE TO TARGET POSITION
[NEAR:SAVE / FAR:CANCEL]
                  0/0/x1/N
```

① Using joystick, move camera to desired position.

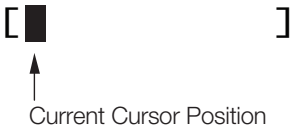
② By pressing **NEAR** or **ENTER** key, save current **PTZ** data.

③ Press **FAR** key to cancel.

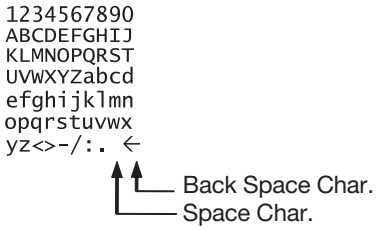
❖ Edit Preset Label

```
LABEL - PRESET 1
-------------------------
→[          ]
  ----------
  1234567890    OK
  ABCDEFGHIJ    CANCEL
  KLMNOPQRST
  UVWXYZabcd
  efghijklmn
  opqrstuvwx
  yz<>-/:.←
```

① Edits label to show on monitor when camera arrives at presets. In Edit Label menu, a reverse rectangular is cursor. As soon as finishing selecting alphabet, cursor moves to the next digit.



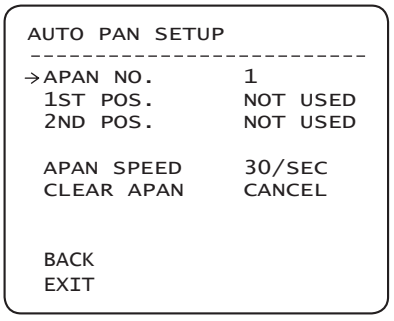
② Using **Left/Right/Up/Down** of joystick, move to an appropriate character from the Character set. To choose that character, press the **NEAR** or **ENTER** key.



If you want to use blank, choose Space character (" "). If you want to delete a character before, use back space character ("←").

③ If you complete the Label editing, move cursor to "OK" and press **NEAR** or **ENTER** key to save completed label. To abort current change, move cursor to "Cancel" and press **NEAR** or **ENTER** key.

AUTO PAN SETUP

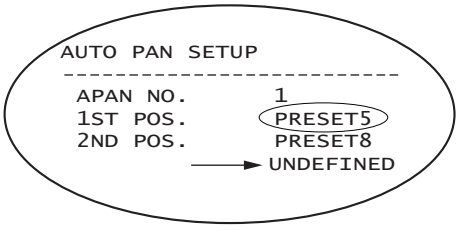


- Auto Pan Number [1~8]

  Selects Auto Pan number to edit. If a selected Auto Pan has not defined, "NOT USED" is displayed in 1st Position and 2nd Position

- 1st Position / 2nd Position [PRESET 1~128]

  Set up the 2 position for Auto Pan function. If a selected preset is not defined, "UNDEFINED" will be displayed as shown below.



When Auto Pan function runs, camera moves from the preset assigned as the 1st point to the preset assigned as the 2nd point in CW(Clockwise) direction. Then camera moves from the preset assigned as the 2nd point to the preset assigned as the 1st point in CCW(Counterclockwise) direction. In case that the preset assigned as the 1st point is same as the preset assigned as the 2nd point, camera turns on its axis by 360° in CW direction and then it turns on its axis by 360° in CCW direction.

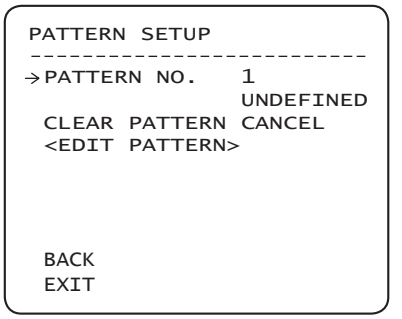
- APAN(AUTO PAN) Speed [1°/sec ~180°/sec]

  Sets Auto Pan speed from 1°/sec to 180°/sec.

- Clear APAN(AUTO PAN) [CANCEL/OK]

  Deletes current Auto Pan data.

PATTERN SETUP



- Pattern Number [1~4]

  Selects Pattern number to edit.

  If a selected pattern number is not defined, "UNDEFINED" will be displayed under selected pattern number.

- Clear Pattern [CANCEL/OK]

  Deletes data in current pattern

- Edit Pattern

  Starts editing pattern.

ENG

How to use OSD Menu

❖ Edit Pattern

① By using Joystick, move to start position with appropriate zoom. To start pattern recording, press **NEAR** or **ENTER** key. To exit this menu, press **FAR** key.

```
EDIT PATTERN 1
-------------------------




MOVE TO START POSITION
[NEAR:START/ FAR:CANCEL]
                   0/0/x1/N
```

② Move camera with joystick of controller or run preset function to memorize the path (mostly curve path) in a selected pattern. The total memory size and the rest memory size is displayed in the form of bar. Maximum 1,000 communication commands can be stored in a pattern.

```
EDIT PATTERN 1
□□□□□□□□□□□□□□□□□□□□□□□□




[NEAR:SAVE / FAR:DELETE]
                   0/0/x1/N
```

③ To save data and exit, press **NEAR** or **ENTER** key. To cancel recording and delete record data, press **FAR** key.

SCAN SETUP

```
SCAN SETUP
-------------------------
→SCAN NO.        1
                 UNDEFINED
 CLEAR SCAN      CANCEL
 <EDIT SCAN>




 BACK
 EXIT
```

- Scan Number [1~8]

  Selects Scan number to edit.

  If a selected Scan number is not defined, "UNDEFINED" will be displayed under selected Scan number.
- Clear Scan [CANCEL/OK]

  Deletes data in current Scan
- Edit Scan Starts editing Scan.

❖ Edit Scan

① Press **NEAR** or **ENTER** key in "NO" list to start Scan setup.

```
EDIT SCAN      1
-------------------------
 NO. ACTION NO. DWELL OPT
-------------------------
→ 1 NONE
  2 NONE
  3 NONE
  4 NONE
  5 NONE
-------------------------
 SAVE
 CANCEL          [NEAR:EDIT]
```

② Note that MAX. 20 Functions are allowed in a Scan. Move cursor up/down and press **NEAR** or **ENTER** key to set up.

```
EDIT SCAN      1
-------------------------
 NO. ACTION NO. DWELL OPT
-------------------------
→ 1 NONE
  2 NONE
  3 NONE
  4 NONE
  5 NONE
-------------------------
 SAVE       [NEAR:EDIT ACT]
 CANCEL     [FAR :EDIT END]
```

③ Set up Action, Dwell time and Option. Note that selected item is displayed in reverse. Move cursor **Left/Right** to select items and move cursor **Up/Down** to change each value.

```
EDIT SCAN      1
--------------------------
 NO. ACTION NO. DWELL OPT
--------------------------
  1 [NONE]
  2 NONE
  3 NONE
  4 NONE
  5 NONE
--------------------------
 SAVE      [◄►:MOVE CURSOR]
 CANCEL    [▲▼:CHANGE VAL.]
```

- Action NO.

  [NONE/PRESET/AUTO PAN/PATTERN]
- DWELL [1 second ~ 4 minutes]

  Sets Dwell Time between functions
- OPT

  Option. It represents preset speed (2~360) when preset is selected. It should be the number of repetition (1~255) when Pattern or Auto Pan is selected for Action

④ Set up items such as Action, NO., Dwell and OPT.

```
EDIT SCAN      1
--------------------------
 NO. ACTION NO. DWELL OPT
--------------------------
  1 PRESET [1] 00:03 360
  2 NONE
  3 NONE
  4 NONE
  5 NONE
--------------------------
 SAVE      [◄►:MOVE CURSOR]
 CANCEL    [▲▼:CHANGE VAL.]
```

⑤ After finishing setting up an Action, press **NEAR** or **ENTER** key to one-upper-level menu (Step ②). Move cursor **Up/Down** to select Action number and repeat Step ② ~ Step ④ to edit selected Scan.

```
EDIT SCAN      1
--------------------------
 NO. ACTION NO. DWELL OPT
--------------------------
→ 1 PRESET  1 00:03 360
  2 NONE
  3 NONE
  4 NONE
  5 NONE
--------------------------
 SAVE      [NEAR:EDIT ACT]
 CANCEL    [FAR :EDIT END]
```

⑥ After finishing setting up all Actions, press **FAR** key to exit. Then cursor should be moved to "SAVE." Press **NEAR** or **ENTER** key to save data.

```
EDIT SCAN      1
--------------------------
 NO. ACTION NO. DWELL OPT
--------------------------
  1 PRESET  1 00:03 360
  2 NONE
  3 NONE
  4 NONE
  5 NONE
--------------------------
→SAVE
 CANCEL
```

ENG

How to use OSD Menu

SCHEDULE SETUP

```
SCHEDULE SETUP
--------------------------
→MASTER ENABLE          ON
   DAY TIME   ACT    NO   ON
 1 UNDEFINED
 2 UNDEFINED
 3 UNDEFINED
 4 UNDEFINED
 5 UNDEFINED
 6 UNDEFINED
 7 UNDEFINED
 BACK
```

- Master Enable [ON/OFF]

  Decide whether Schedule function is active or not.

❖ Edit Schedule

① After move the Cursor to the number by using **Up/Down** keys, press "**NEAR**"(Enter) Key to edit.

```
SCHEDULE SETUP
--------------------------
 MASTER ENABLE          ON
   DAY TIME   ACT    NO   ON
→1 UNDEFINED
 2 UNDEFINED
 3 UNDEFINED
 4 UNDEFINED
 5 UNDEFINED
 6 UNDEFINED
 7 UNDEFINED
 BACK
```

② Each field can be selected by **Left/Right** keys and the values in the field are changed using **Up/Down** keys.

```
SCHEDULE SETUP
--------------------------
 MASTER ENABLE          ON
   DAY TIME   ACT    NO   ON
→1 [MON] 00:00 HOM       OFF
 2 UNDEFINED
 3 UNDEFINED
 4 UNDEFINED
 5 UNDEFINED
 6 UNDEFINED
 7 UNDEFINED
 BACK
```

The meaning of each value:

DAY	Days: MON → TUE → WED → THU → FRI → SAT → SUN
	WKD: Weekday
	ALL: All days(Everyday)
TIME	24hour Format
ACT	PRS(Preset), AUP(Auto Pan), PTN(Pattern), SCN(Scan), HOM(Home)
ON/OFF	Decide to make this rule effective or not

If you finish a rule, press **NEAR** or **ENTER** key to select another rule.

Repeat this procedure to fill up the schedule in mind.

③ Example

– The second rule means camera will move to Preset 12 position at 7:35 on every Wednesday.

```
SCHEDULE SETUP
--------------------------
 MASTER ENABLE          ON
   DAY TIME   ACT    NO   ON
→1 MON 01:20 HOM         ON
 2 WED 07:35 PRS    12   ON
 3 THU 11:40 SCN     3   ON
 4 SAT 15:17 PTN     1   ON
 5 WKD 23:00 HOM         ON
 6 UNDEFINED
 7 UNDEFINED
 BACK
```

* Note: If there are rules conflicts to each other, the higher number is, the higher priority has.
* Note: If you assign undefined function, there will be no action.
* Hint: Using reserved Preset, you can make various schedules. For example, PRS179 are PRS178 are Day and Night mode respectively. (Refer to Reserved Preset(page 15) List in this manual.)

CAMERA SETUP

Setup the general functions of zoom camera module

```
ZOOM CAMERA SETUP
-------------------------
→FOCUS MODE     SEMIAUTO
 DIGITAL ZOOM   ON
 IMAGE FLIP     OFF
 FLICKERLESS    OFF
 <WHITE BALANCE SETUP>
 <AUTO EXPOSURE SETUP>


 BACK
 EXIT
```

- Focus Mode [AUTO/MANUAL/SEMIAUTO]

  Sets camera focus mode.

  ◆ SEMIAUTO Mode

  This mode exchanges focus mode automatically between Manual Focus mode and Auto Focus mode. Manual Focus mode activates in preset operation and Auto Focus mode activates when jog operation starts.

  With Manual mode at presets, Focus data is memorized in each preset in advance and camera calls focus data in correspondence with presets as soon as camera arrives at a preset.

- Digital Zoom [ON/OFF]

  Sets digital zoom function to ON/OFF. If this is set to OFF, optical zoom function runs but zoom function stops at the end of optical zoom magnification.

- Image Flip [ON/OFF]

  To display Upside down image.

- Flickerless [ON/OFF]

  Turn on or off the Flickerless function. In this function, AE mode becomes Shutter Priority mode and shutter speed value will be fixed to 1/100 sec.

❖ White Balance Setup

```
WB SETUP - GLOBAL
-------------------------
→WB MODE          AUTO
 ●RED  ADJUST     ---
 ●BLUE ADJUST     ---




 BACK
 EXIT
```

- WB Mode [AUTO/MANUAL]

  In Manual mode, Red and Blue level can be set up manually

- Red Adjust [0~255]
- Blue Adjust [0~255]

❖ Auto Exposure Setup

```
AE SETUP
-------------------------
→WDR/BLC          ALL OFF
 DAY/NIGHT        AUTO
 AE MODE          AUTO
 ■ IRIS LEVEL     ---
 ■ GAIN LEVEL     ---
 ■ SHUTTER SPD    ---
 ■ BRIGHTNESS     ---

 BACK
 EXIT
```

- WDR/BLC [ALL OFF / WDR ON / BLC ON]

  Select WDR(Wide Dynamic Range) or BLC(Backlight Compensation) function. All OFF means turning off both functions.

- Day/Night [AUTO/DAY/NIGHT]

  AUTO exchanges Day / Night

- AE MODE AUTO / MANUAL / IRIS / SHUTTER / BRIGHT

  AUTO: Full Auto mode for AE function

  MANUAL: In manual mode. IRIS, GAIN, SHUTTER SPEED can be changed in this mode.

  IRIS: Iris priority mode. You can change IRIS while others are adjusted automatically.

  SHUTTER: Shutter priority mode. Shutter speed can be changed while others are adjusted automatically.

  BRIGHT: In this mode, you can assign AE value in terms of Brightness.

- IRIS
  [Works when AE MODE is MANUAL or IRIS model]
  Range: CLOSE/F1.6/F2/F2.4/F2.8/F3.4/F4/F4.8/ F5.6/F6.8/F8/ F9.6/F11/F14/F16/F19/F22/F28. (18 steps)
- GAIN
  [Works when AE MODE is MANUAL]
  Enhances image brightness automatically in case that luminance level of image signal is too low.
  Range: -3/0/2/4/6/8/10/12/14/16/18/20/22/24/26/ 28dB (16 steps)
- Shutter Speed
  [Works when AE MODE is MANUAL or SHUTTER mode]
  X64, X32, X16, X8, X4, X2,1/60,1/90,1/100,1/125,1/ 180,1/250,1/350,1/500,1/725,1/1000,1/1500,1/ 2000,1/4000,1/6000,1/10000
- Brightness
  [Works when AE MODE is BRIGHT]
  Adjusts brightness of images. Iris, Shutter Speed and Gain are adjusted automatically in correspondence with this value. Range: 0~31 (32 steps)

SYSTEM SETUP

```
SYSTEM SETUP
-------------------------
→<DATE/TIME SETUP>
 <RELAY TYPE>
 <PASSWORD>
 <SET HOME POSITION>
 <SET NORTH DIRECTION>
 LANGUAGE        ENGLISH


 BACK
 EXIT
```

- System Setup
  You can set up DATE/TIME, RELAY TYPE, PASSWORD, HOME POSITION, NORTH POSITION.
- Date
  Date is displayed in dd/mm/yyyy format. The day is automatically calculated when you set the date.

```
DATE/TIME SETUP
-------------------------
→DATE    01/JAN/2008(TUE)
 TIME    00:00:01(H/M/S)




 BACK
 EXIT
```

- Time
  Time is displayed in HH:MM:SS format.
- Date/time Setup
  After you press the **NEAR** or **ENTER** key, each field can be selected by Left/Right keys and the values in the field are changed using Up/Down keys. To save the updated data, press the **NEAR** or **ENTER** key again

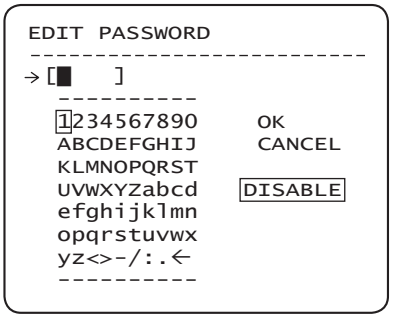
✎ It is noted that the range of date setup is limited from 01/JAN/2000 to 31/DEC/2037.

```
RELAY TYPE SETUP
-------------------------
→RELAY1 NORMAL OPEN
 RELAY2 NORMAL OPEN
 RELAY3 NORMAL OPEN
 RELAY4 NORMAL CLOSE




 BACK
 EXIT
```

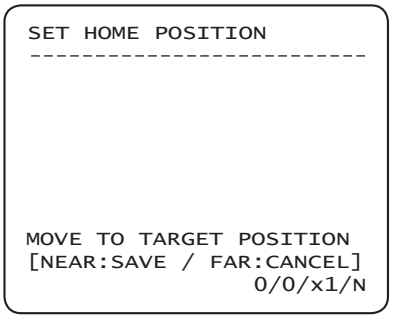
- Relay Type Setup
  Contact types of 4 Ch. RELAY OUTPUTS are defined. (NORMAL OPEN / NORMAL CLOSE)
  NORMAL OPEN
  NORMAL CLOSE



- Password Setup

  You can define 4 characters long password. If this function is set to ENABLE, it is required to type this password whenever to enter OSD MENU.

  It is noted that MASTER PSSWORD : "4321"



- Set Home Position

  HOME position means the origin of PAN angle calculation. The value of PAN angle displayed on the screen is based on this HOME position.

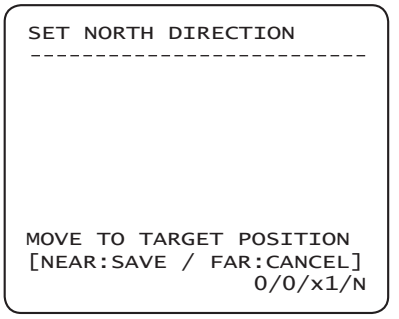
  By using Joystick, move the camera to the desired position and press ENTER (NEAR/SAVE).

  It is noted that Home is not effective to Tilt angle.

- If you change the location of Home position, all horizontal locations of functions such as preset, pattern, scan, auto pan, and privacy zone mask will be shifted based on changed Home position.
- If there are no setup for those functions like Preset, Pattern, Auto Pan and Scan, Camera will automatically move to Home position after rebooting. If Power Up Action is set to be ON, camera will continue the function which is executed lastly after rebooting.

* Set Home Position?

When you replace the camera block or the orientation of camera is changed due to maintenance operations, it is very difficult to maintain same pan orientation. Therefore, all function data depending on pan orientation such as preset, pattern, scan, auto pan, and privacy zone mask are not useful any more accordingly. However, even in this case, you can reuse the data if you redefine Set Home Position on the previous Home position. It is recommendable to memorize the target scene of current Home position.



- Set North Direction

  You can set up North direction.

  By using Joystick, move the camera to the desired NORTH position and press ENTER (NEAR/SAVE).

  The direction will be displayed in the screen

  [PAN AXIS / TILT AXIS / ZOOM / DD]

  DD is direction and will be displayed from:

  N/NE/E/SE/S/SW/W/NW

- Language

  You can select a preferred Language of OSD display from 7 choices.

  [ENGLISH/ ESPAÑOL/ FRANÇAIS/ DEUTSCH/ ITALIANO/ РУССКИЙ/ PORTUGUÊS]

  After selecting a language, press **ENTER**(NEAR) key.

ENG

How to use OSD Menu

SYSTEM INITIALIZE

```
SYSTEM INITIALIZE
-------------------------
→CLEAR ALL DATA        NO
  ■ CLR DISPLAY SET    NO
  ■ CLR CAMERA SET     NO
  ■ CLR MOTION SET     NO
  ■ CLR FUNCTION SET   NO
   REBOOT CAMERA       NO
   REBOOT SYSTEM       NO

  BACK
  EXIT
```

- Clear All Data
  Deletes all configuration data such as display, camera, motion setup and so on.
- Clear Display Set
  Initializes Display Configuration
- Clear Camera Set
  Initializes Camera Configuration
- Clear Motion Set
  Initializes Motion Configuration
- Clear Function Set
  Deletes Preset Data, Auto Pan Data, Pattern Data, Scan Data and Schedule Data
- Reboot Camera
  Reboots Zoom Camera module
- Reboot System
  Reboots Smart Dome Camera

❖ Initial Configuration Table

• Display Configuration	
Camera ID	ON
PTZ Information	AUTO
Action Title	AUTO
Preset Label	AUTO
Alarm I/O	AUTO
Date/Time	ON
Privacy Zone	Undefined

• Motion Configuration	
Preset Lock	OFF
Power Up Action	ON
Auto Flip	ON
Jog Max Speed	140°/sec
Jog Direction	NORMAL
Freeze In Preset	OFF
Park Action	OFF
Alarm I/O Action	OFF

• Communication Setup	
Protocol	AUTO
Baud Rate	9600

• Camera Configuration	
Focus Mode	SEMIAUTO
Digital Zoom	ON
Image Flip	ON
Flickerless	OFF
White Balance	AUTO
Backlight/BLC	ALL OFF
Day/Night	AUTO
AE Mode	AUTO
Iris Level	F4
Gain Level	+2dB
Shutter Speed	1/60
Brightness	13

• Function Data	
Preset 1~128	Undefined
Auto Pan 1~8	Undefined
Pattern 1~4	Undefined
Scan 1~8	Undefined
Schedule 1~7	Undefined

Specifications

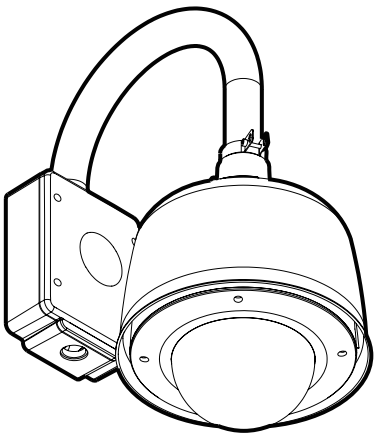
SPECIFICATIONS

<table>
<tr><th colspan="2">Item</th><th>Details</th></tr>
<tr><td rowspan="16">Camera</td><td>Broadcasting Type</td><td>SCC-C7478N : NTSC Standard Color System
SCC-C7478P : PAL Standard Color System</td></tr>
<tr><td>CCD</td><td>EX-View HAD CCD</td></tr>
<tr><td>Effective Pixels</td><td>SCC-C7478N : 768(H) × 494(V)
SCC-C7478P : 752(H) × 582(V)</td></tr>
<tr><td>Horizontal Resolution</td><td>Color : 540 / BW : 570 TV Line</td></tr>
<tr><td>S/N Ratio</td><td>Approx. 50 dB</td></tr>
<tr><td>Zoom</td><td>x36 Optical Zoom, x12 Digital Zoom</td></tr>
<tr><td>Focal length</td><td>f=3.4mm(Wide) ~ 122.4mm(Tele), F1.6 ~ F4.5</td></tr>
<tr><td>Min. illumination</td><td>
<table>
<tr><th colspan="2">illumination</th><th colspan="2">Sens-up</th><th colspan="2">Color</th><th colspan="2">B/W (S/W)</th></tr>
<tr><td>50</td><td>IRE</td><td colspan="2">No</td><td>1.40</td><td>Lux</td><td>0.15000</td><td>Lux</td></tr>
<tr><td>30</td><td>IRE</td><td colspan="2">No</td><td>0.84</td><td>Lux</td><td>0.09000</td><td>Lux</td></tr>
<tr><td>15</td><td>IRE</td><td colspan="2">No</td><td>0.42</td><td>Lux</td><td>0.04500</td><td>Lux</td></tr>
<tr><td>50</td><td>IRE</td><td>64</td><td>times</td><td>0.0219</td><td>Lux</td><td>0.00230</td><td>Lux</td></tr>
<tr><td>30</td><td>IRE</td><td>64</td><td>times</td><td>0.0131</td><td>Lux</td><td>0.00140</td><td>Lux</td></tr>
<tr><td>15</td><td>IRE</td><td>64</td><td>times</td><td>0.0066</td><td>Lux</td><td>0.00070</td><td>Lux</td></tr>
</table>
</td></tr>
<tr><td>Signal Output</td><td>Composite Video Out : 1.0 Vp-p 75 ohms/BNC</td></tr>
<tr><td>Day & Night</td><td>Auto / Day / Night(ICR)</td></tr>
<tr><td>Focus</td><td>Auto / Manual / SemiAuto</td></tr>
<tr><td>Iris</td><td>Auto / Manual</td></tr>
<tr><td>Shutter Speed</td><td>X64 ~ X2, 1/60 ~ 1/10,000s</td></tr>
<tr><td>AGC</td><td>Auto/Manual(-3 ~ 28dB)</td></tr>
<tr><td>White Balance</td><td>Auto / Manual(Red, Blue Gain Adjustable)</td></tr>
<tr><td>WDR, BLC</td><td>WDR On/Off, BLC On/Off</td></tr>
<tr><td>Flickerless</td><td>Selectable</td></tr>
<tr><td>Privacy Zone</td><td>8 Area</td></tr>
<tr><td rowspan="8">Pan/Tilt</td><td rowspan="3">Range</td><td>Pan : 360°(Endless)</td></tr>
<tr><td>Tilt : 180°</td></tr>
<tr><td>Preset : 360°/sec</td></tr>
<tr><td rowspan="2">Pan/Tilt Speed</td><td>Manual : 0.05 ~ 200°/sec (Inversely Proportional to Zoom)</td></tr>
<tr><td>Auto Pan : 1 ~ 180°/sec</td></tr>
<tr><td>Preset</td><td>127 Preset (Label, Camera Image Setting)</td></tr>
<tr><td>Pattern</td><td>4 Pattern, 1000 Commands(About 5 Minute)/Pattern</td></tr>
<tr><td>Auto Pan</td><td>8 Auto Pan</td></tr>
<tr><td>Scan</td><td>8 Scan (20 action entities per Scan)</td></tr>
<tr><td>Other Functions</td><td>Auto Flip, Auto Parking, Power Up Action etc.</td></tr>
<tr><td rowspan="11">General</td><td>Communication</td><td>RS-485</td></tr>
<tr><td>Protocol</td><td>Auto, Pelco-D, Pelco-P, Samsung selectable</td></tr>
<tr><td>Privacy Zone</td><td>8 Zone</td></tr>
<tr><td>Alarm Input</td><td>8 Input</td></tr>
<tr><td>Alarm Output</td><td>4 Relay Output</td></tr>
<tr><td>OSD</td><td>Menu / PTZ Information etc
Support 7 Languages: [ENGLISH /ESPAÑOL /FRANÇAIS /DEUTSCH/ITALIANO /РУССКИЙ /PORTUGUÊS]</td></tr>
<tr><td>Power Input</td><td>SCC-C7478N : AC 24V ± 10% (60Hz ± 0.3Hz)
SCC-C7478P : AC 24V ± 10% (50Hz ± 0.3Hz)</td></tr>
<tr><td>Power Consumption</td><td>24W(Heater Off) / 57W(Heater On)</td></tr>
<tr><td rowspan="3">Dimension</td><td>Camera
(Camera only)</td><td colspan="2">(Ø × H) : 259 × 265.7 (mm)
: 10.2 × 10.46 (inch)</td></tr>
<tr><td rowspan="2">Camera
(With a mount bracket)</td><td>Wall Mount Type
(W X H X D)</td><td>:259X404.5X 551.7 (mm)
:10.2X15.9X21.7 (inch)</td></tr>
<tr><td>Ceiling Mount Type
(Ø X H)</td><td>: 259X648.7 (mm)
: 10.2X25.54 (inch)</td></tr>
<tr><td rowspan="2">Weight</td><td colspan="3">Wall Mount Type : About 6 kgf (13.2 LB)</td></tr>
<tr><td colspan="3">Ceiling Mount Type : About 5.8 Kgf (12.8 LB)</td></tr>
<tr><td>Operating Temp.</td><td colspan="3">-45°C ~ 50°C(-49°F ~ 122°F)</td></tr>
<tr><td>Lives of Main Parts</td><td colspan="3">Slip Ring : Rotated 10,000,000 times</td></tr>
</table>

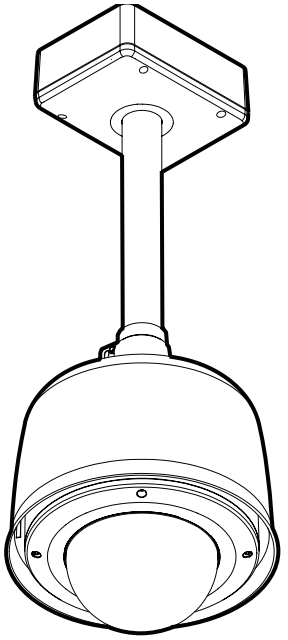
* Specifications of this product can be subjected to change without notice.
** Check the rated voltage and current capacity of power supply carefully.

❖ Appearance

• Wall Mount



• Ceiling Mount



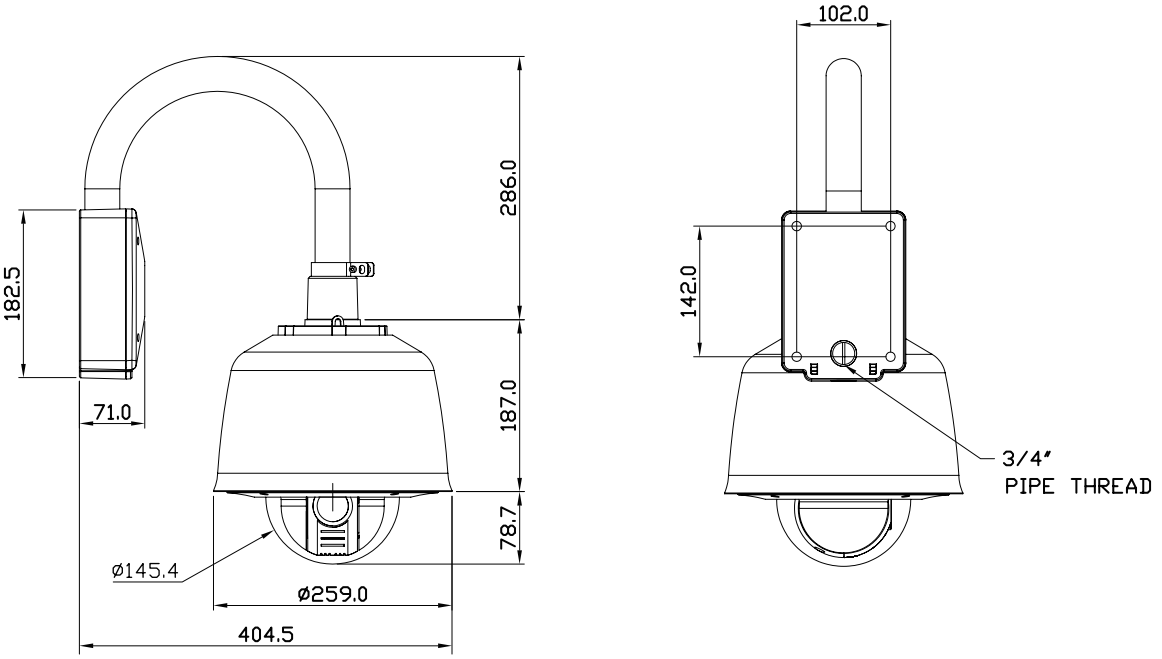
ENG

Specifications

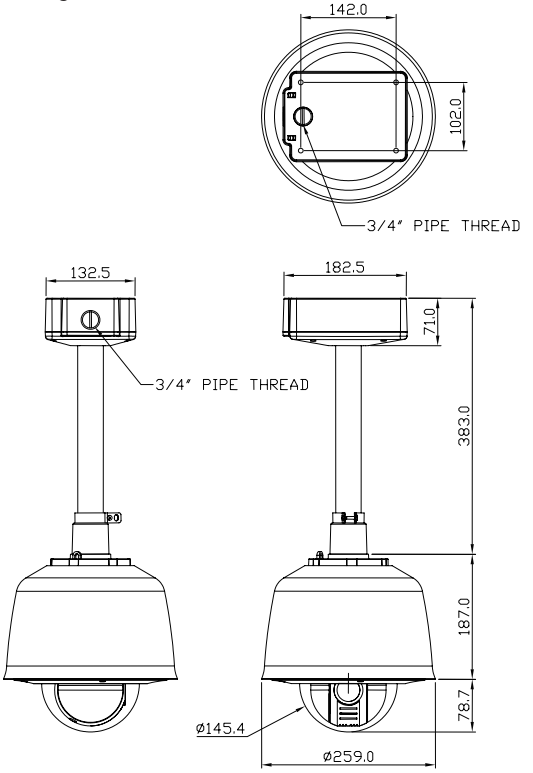
DIMENSION

Unit (mm)

• Wall Mount Bracket



• Ceiling Mount Bracket



SAMSUNG